Appendix D

NPDES General Permit for Storm Water Discharges from Construction Activities

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A copy of the General Permit is provided as required (Federal Register, Vol. 63, No. 31, February 17, 1998).

federal register

Tuesday
February 17, 1998

Part II

Environmental Protection Agency

Reissuance of NPDES General Permits for Storm Water Discharges From Construction Activities; Notice

ENVIRONMENTAL PROTECTION AGENCY

[FRL–5965–9]

Reissuance of NPDES General Permits for Storm Water Discharges From Construction Activities

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of final NPDES general permits.

SUMMARY: The Regional Administrators of Regions 1, 2, 3, 7, 8, 9 and 10 are today issuing final National Pollutant Discharge Elimination System (NPDES) general permits for storm water discharges associated with construction activity. EPA first issued permits for these activities in September 1992. These permits subsequently expired in September 1997. Today's permits, which replace the expired permits, authorize the discharge of pollutants in storm water runoff from construction activities in accordance with the terms and conditions of these permits. Hereinafter, the terms "permit" or "construction general permit" or "CGP" will replace "permits" for reasons of readability (the pluralized form is technically more proper, denoting the issuance of separate general permits in each of the Regions listed above).

DATES: This general permit shall be effective on February 17, 1998. This effective date is necessary to provide dischargers with the immediate opportunity to comply with CWA requirements in light of the recent expiration of the previous general permit for storm water discharges associated with construction activity. Deadlines for submittal of Notices of Intent (NOIs) are provided in section V, Part II.A, of the Fact Sheet and Part II.A of the general permit. Today's general permit also provides additional dates for compliance with the terms of the permit.

ADDRESSES: The index to the administrative record for this permit is available at the appropriate Regional Office or from the EPA Water Docket in Washington, DC. The complete administrative record is located at the Water Docket, MC–4101, U.S. EPA, 401 M Street SW, Washington, DC 20460. Copies of information in the record are available upon request. A reasonable fee may be charged for copying. Specific record information can also be made available at the appropriate Regional Office upon request.

NOTICE OF INTENT FORMS: A Notice of Intent (NOI) form must be submitted to obtain coverage for storm water discharges under this permit. Until the U.S. Office of Management and Budget (OMB) approves and the EPA publishes a revised NOI form designed specifically for this permit, operators of storm water discharges associated with construction activity must use the existing NOI form to obtain permit coverage. Upon publication of the revised NOI form in the **Federal Register**, operators must use the revised form to obtain coverage under the Construction General Permit.

FOR FURTHER INFORMATION CONTACT: For further information on the NPDES Construction General Permit, call the EPA Regions 6 and 2 Storm Water Hotline at 1–800–245–6510, or your EPA Regional storm water coordinator. Information is also available through the Internet on the EPA's Office of Wastewater Management web site at "http://www.epa.gov/owm/cgp.htm" and at the various EPA Regional Office Internet web sites.

SUPPLEMENTARY INFORMATION:

Contents

I. Introduction

The United States Environmental Protection Agency (EPA) is reissuing the general permit which authorizes the discharge of pollutants in storm water associated with construction activity. As used in this permit, "storm water associated with construction activity" refers to category (x) of the definition of "discharge of storm water associated with industrial activity." Category (x) includes construction activity disturbing at least five acres, or construction activity disturbing less than five acres which is part of a larger common plan of development or sale with the potential to disturb cumulatively five or more acres (*See* 40 CFR 122.26(b)(14)).

This construction general permit is written as if it was a single permit rather than the 45 legally separate and individually numbered general permits it is comprised of. Unless otherwise noted, references to "the permit" apply to the common language of each of the 45 separate general permits. Any area-specific conditions that apply are found in Part X of the permit.

This permit replaces the previous Baseline Construction General Permit which was issued for a five-year term in September 1992. The most significant changes from the 1992 permit include:

- New conditions to protect listed endangered and threatened species and critical habitats;
- Expanded coverage to construction sites under five acres of disturbed land which are not part of a larger common plan of development or sale when an operator has been designated by the Director to obtain coverage pursuant to 40 CFR 122.26(a)(1)(v) or 122.26(a)(9) and 122.26(g)(1)(i);
- A requirement to post the confirmation of permit coverage (the permit number or copy of the Notice of Intent (NOI) if a permit number has not yet been assigned) including a brief description of the project;
- Terms applicable when transitioning from the previous permit;
- The requirement to submit a notice of permit termination when construction is completed;
- Automatic coverage under an expired, but administratively-continued permit;
- Capability to use this permit to acquire coverage for other construction-related industrial activities (*e.g.*, a concrete batch plant); and
- Storm water pollution prevention plan performance objectives.

This general permit for storm water discharges associated with construction activity was proposed on June 2, 1997 (62 FR 29786), and is hereby issued with individual permit numbers for the following areas:

Region 1: The Commonwealth of Massachusetts and the States of Maine and New Hampshire; Indian Country lands in the Commonwealth of Massachusetts and the States of Maine, Rhode Island and Connecticut; Federal facilities in Vermont.

Region 2: The Commonwealth of Puerto Rico and Indian Country lands in the State of New York.

Region 3: District of Columbia; Federal facilities in the State of Delaware.

Region 7: Indian Country lands in Iowa, Kansas and Nebraska (except Pine Ridge Reservation Lands [see Region 8]).

Region 8: Federal facilities in Colorado; Indian Country lands in Colorado (including the portion of the Ute Mountain Reservation located in New Mexico), Montana, North Dakota (including that portion of the Standing Rock Reservation located in South

Dakota and excluding the Lake Traverse Reservation which is covered under the permit for areas of South Dakota), South Dakota (including the portion of the Pine Ridge Reservation located in Nebraska and the portion of the Lake Traverse Reservation located in North Dakota and excluding the Standing Rock Reservation which is covered under the permit for areas of North Dakota), Utah (except Goshute and Navajo Reservation lands [see Region 9]) and Wyoming.

Region 9: The Islands of American Samoa and Guam, Johnston Atoll, Midway/Wake Islands and Commonwealth of the Northern Mariana Islands; the State of Arizona; Indian Country Lands in Arizona (including Navajo Reservation lands in New Mexico and Utah), California and Nevada (including the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Goshute Reservation in Utah).

Region 10: The States of Alaska and Idaho; Indian Country lands in Alaska and Idaho (except Duck Valley Reservation [see Region 9]), Washington and Oregon (except for Fort McDermitt Reservation [see Region 9]); Federal facilities in Washington.

II. Answers to Common Questions

In this section, EPA provides answers to some of the more common questions on the construction storm water permitting program. It is intended to help you get started in understanding the permit. Be aware these answers are fairly broad and may not take into account all scenarios possible at construction sites. More details on these issues are provided later in this Fact Sheet, especially in section VIII, Summary of Responses to Comments on the Proposed Permit.

How Do I Know If I Need a Permit?

You need a storm water permit if you can be considered an "operator" of the construction activity that would result in the "discharge of storm water associated with construction activity." You must become a permittee if you meet either of the following two criteria:

- You have operational control of construction project plans and specifications, including the ability to make modifications to those plans and specifications; or
- You have day-to-day operational control of those activities at a project which are necessary to ensure compliance with a storm water pollution prevention plan (SWPPP) for the site or other permit conditions (*e.g.*, you are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions).

There may be more than one party at a site performing the tasks relating to "operational control" as defined above. Depending on the site and the relationship between the parties (*e.g.*, owner, developer), there can either be a single party acting as site operator and consequently be responsible for obtaining permit coverage, or there can be two or more operators with all needing permit coverage. The following are three general operator scenarios (variations on any of the three are possible as the number of "owners" and contractors increases):

- Owner as sole permittee. The property owner designs the structures for the site, develops and implements the SWPPP, and serves as general contractor (or has an on-site representative with full authority to direct day-to-day operations). He may be the only party that needs a permit, in which case everyone else on the site may be considered subcontractors and not need permit coverage.
- Contractor as sole permittee. The property owner hires a construction company to design the project, prepare the SWPPP, and supervise implementation of the plan and compliance with the permit (*e.g.*, a "turnkey" project). Here, the contractor would be the only party needing a permit. It is under this scenario that an individual having a personal residence built for his own use (*e.g.*, not those to be sold for profit or used as rental property) would not be considered an operator. EPA believes that the general contractor, being a professional in the building industry, should be the entity rather than the individual who is better equipped to meet the requirements of both applying for permit coverage and developing and properly implementing a SWPPP. However, individuals would meet the definition of "operator" and require permit coverage in instances where they perform general contracting duties for construction of their personal residences.
- Owner and contractor as co-permittees. The owner retains control over any changes to site plans, SWPPPs, or storm water conveyance or control designs; but the contractor is responsible for overseeing actual earth disturbing activities and daily implementation of SWPPP and other permit conditions. In this case, both parties may need coverage.

However, you are probably not an operator and subsequently do not need permit coverage if:

- You are a subcontractor hired by, and under the supervision of, the owner or a general contractor (*i.e.*, if the contractor directs your activities on-site, you probably are not an operator); or
- Your activities on site result in earth disturbance and you are not legally a subcontractor, but a SWPPP specifically identifies someone other than you (or your subcontractor) as the party having operational control to address the impacts your activities may have on storm water quality (i.e., another operator has assumed responsibility for the impacts of your construction activities). This particular provision will apply to most utility service line installations. For further information concerning whether utility service line installations meet the definition of operator and require permit coverage, see the discussion under "Installation of Utility Service Lines" in section VIII, Summary Response to Public Comments of the Fact Sheet.

In addition, for purposes of this permit and determining who is an operator, "owner" refers to the party that owns the structure being built. Ownership of the land where construction is occurring does not necessarily imply the property owner is an operator (*e.g.*, a landowner whose property is being disturbed by construction of a gas pipeline). Likewise, if the erection of a structure has been contracted for, but possession of the title or lease to the land or structure is not to occur until after construction, the would-be owner may not be considered an operator (*e.g.*, having a house built by a residential homebuilder).

My Project Will Disturb Less Than Five Acres, but It May Be Part of a "Larger Common Plan of Development or Sale." How Can I tell and What Must I Do?

If your smaller project is part of a larger common plan of development or sale that collectively will disturb five or more acres (*e.g.*, you are building on six half-acre residential lots in a 10-acre development or are putting in a parking lot in a large retail center) you need permit coverage. The "plan" in a common plan of development or sale is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, sales pitch, advertisement, drawing, permit application, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating construction activities may occur on a specific plot. You must still meet the definition of operator in order to be required to get permit coverage, regardless of the acreage you personally

disturb. As a subcontractor, it is unlikely you would need a permit.

For some situations where less than five acres of the original common plan of development remain undeveloped, a permit may not be needed for the construction projects "filling in" the last parts of the common plan of development. A case in which a permit would not be needed is where several empty lots totaling less than five acres remain after the rest of the project had been completed, providing stabilization had also been completed for the entire project. However, if the total area of all the undeveloped lots in the original common plan of development was more than five acres, a permit would be needed.

When Can You Consider Future Construction on a Property To Be Part of a Separate Plan of Development or Sale?

In many cases, a common plan of development or sale consists of many small construction projects that collectively add up to five (5) or more acres of total disturbed land. For example, an original common plan of development for a residential subdivision might lay out the streets, house lots, and areas for parks, schools and commercial development that the developer plans to build or sell to others for development. All these areas would remain part of the common plan of development or sale until the intended construction occurs. After this initial plan is completed for a particular parcel, any subsequent development or redevelopment of that parcel would be regarded as a new plan of development, and would then be subject to the five-acre cutoff for storm water permitting purposes.

What Must I Do To Satisfy the Permit Eligibility Requirements Related to Endangered Species?

In order to be eligible for this permit, you must follow the procedures and examples found in Addendum A for the protection of endangered species. You cannot submit your NOI until you are able to certify your eligibility for the permit. Enough lead time should be built into your project schedule to accomplish these procedures. If another operator has certified eligibility for the project (or at least the portion of the project you will be working on) in his NOI, you will usually be able to rely on his certification of project eligibility and not have to repeat the process. EPA created this "coat tail" eligibility option for protection of endangered species to allow the site developer/owner to obtain up-front "clearance" for a project, thereby avoiding duplication of effort by his contractors and unnecessary delays in construction.

What Does the Permit Require Regarding Historic Preservation?

Today's permit does not currently impose requirements related to historic preservation, though EPA may modify the permit at a later date after further discussions with the Advisory Council on Historic Preservation. Therefore, under today's permit, EPA will conduct consultations as it did under the pre-existing Baseline Construction General Permit on a case-by-case basis as needed. Removal of the proposed permit provisions related to historic preservation in no way relieves applicants and permittees of their obligations to comply with applicable State, Tribal or local laws for the preservation of historic properties. EPA reminds permittees that according to section 110(k) of the National Historic Preservation Act (NHPA), an intentional action to significantly adversely affect historic resources with intent to avoid Federal historic preservation requirements may jeopardize future permit coverage for such a permittee.

How Many Notices of Intent (NOIs) Must I Submit? Where and When Are They Sent?

You only need to submit one NOI to cover all activities on any one common plan of development or sale. The site map you develop for the storm water pollution prevention plan identifies which parts of the overall project are under your control. For example, if you are a homebuilder in a residential development, you need submit only one NOI to cover all your lots, even if they are on opposite sides of the development.

The NOI must be postmarked two days before you begin work on site. The address for submitting NOIs is found in the instruction portion of the NOI form and in Part II.C. of the CGP. You must also look in Part X of the permit to determine if copies of the NOI form are to be sent to a State or Indian Tribe.

How Do I Know Which Permit Conditions Apply to Me?

You are responsible for complying with all parts of the permit that are applicable to the construction activities you perform. Part III.E. of the permit defines the roles of various operators at a site. In addition, several States and Indian Tribes require alternative or additional permit conditions, and these can be found in Part X of the permit.

Do I Have Flexibility in Preparing the Storm Water Pollution Prevention Plan (SWPPP) and Selecting Best Management Practices (BMPs) for My Site?

Storm water pollution prevention plan requirements were designed to allow maximum flexibility to develop the needed storm water controls based on the specifics of the site. Some of the factors you might consider include: more stringent local development requirements and/or building codes; precipitation patterns for the area at the time the project will be underway; soil types; slopes; layout of structures for the site; sensitivity of nearby water bodies; safety concerns of the storm water controls (*e.g.*, potential hazards of water in storm water retention ponds to the safety of children; the potential of drawing birds to retention ponds and the hazards they pose to aircraft); and coordination with other site operators.

Must Every Permittee Have His Own Separate SWPPP or Is a Joint Plan Allowed?

The only requirement is that there be at least one SWPPP for a site which incorporates the required elements for all operators, but there can be separate plans if individual permittees so desire. EPA encourages permittees to explore possible cost savings by having a joint SWPPP for several operators. For example, the prime developer could assume the inspection responsibilities for the entire site, while each homebuilder shares in the installation and maintenance of sediment traps serving common areas.

If a Project Will Not Be Completed Before This Permit Expires. How Can I Keep Permit Coverage?

If the permit is reissued or replaced with a new one before the current one expires, you will need to comply with whatever conditions the new permit requires in order to transition coverage from the old permit. This usually includes submitting a new NOI. If the permit expires before a replacement permit can be issued, the permit will be administratively "continued." You are automatically covered under the continued permit, without needing to submit anything to EPA, until the earliest of:

- The permit being reissued or replaced;
- Submittal of a Notice of Termination (NOT);
- Issuance of an individual permit for your activity; or
- The Director issues a formal decision not to reissue the permit, at

which time you must seek coverage under an alternative permit.

When Can I Terminate Permit Coverage? Can I Terminate Coverage (i.e., Liability for Permit Compliance) Before the Entire Project is Finished?

You can submit an NOT for your portion of a site providing: (1) You have achieved final stabilization of the portion of the site for which you are a permittee (including, if applicable, returning agricultural land to its pre-construction agricultural use); (2) another operator/permittee has assumed control according to Part VI.G.2.c. of the permit over all areas of the site that have not been finally stabilized which you were responsible for (for example, a developer can pass permit responsibility for lots in a subdivision to the homebuilder who purchases those lots, providing the homebuilder has filed his own NOI); or (3) for residential construction only, you have completed temporary stabilization and the residence has been transferred to the homeowner.

III. Coverage Provided by General Permits

Section 402(p) of the Clean Water Act (CWA) states that storm water discharges associated with industrial activity to waters of the United States must be authorized by an NPDES permit. The term "discharge" when used in the context of the NPDES program means the discharge of pollutants (40 CFR 122.2).

On November 16, 1990, EPA published regulations under the NPDES program which defined one facet of the phrase "storm water discharges associated with industrial activity" as being discharges from construction activities (including clearing, grading and excavation activities) that result in the disturbance of five or more acres of total land area, including smaller areas that are part of a larger common plan of development or sale (40 CFR 122.26(b)(14)(x)). These types of construction activity are commonly referred to as Phase I construction activities. "Storm water discharges associated with construction activities" will hereinafter refer to discharges from Phase I construction activities or support activities, including those that meet the larger definition of a storm water discharge associated with industrial activity or those that are designated under the provisions of 40 CFR 122.26.

Previously, there may have been some confusion as to permitting requirements for sites disturbing less than five acres but that are part of a larger common plan of development or sale. For clarification, all construction activity regulated under 40 CFR 122.26(b)(14)(x) is eligible for coverage under this permit including small construction sites disturbing less than five acres that are also a part of a larger common plan of development or sale which has the potential of disturbing five or more acres collectively. Examples of these would be lots in a subdivision or industrial park. These are also Phase I construction activities.

Single construction sites under five acres that are not part of a larger plan of development or sale with disturbances totaling at least five acres are not eligible for coverage under this permit unless they are specifically designated for coverage pursuant to 40 CFR 122.26 (a)(1)(v) or 122.26(a)(9) and 122.26(g)(1)(i). Under EPA's existing regulations, however, these smaller projects may be required to submit permit applications not later than August 7, 2001, unless an applicant is specifically required by the Director to submit an application before that time. Small (Phase II) construction sites will be addressed by EPA in the future pursuant to a Ninth Circuit Court mandate. EPA is employing the assistance of a Federal Advisory Committee to make recommendations on how best to treat small sites vis-a-vis the NPDES program, and will issue a proposed rule addressing Phase II construction activities in December 1997. Finalization of the rule is scheduled for March 1, 1999. If permitting is the approach adopted for these small sites, the permits will be issued at a future date.

EPA issued the first round of the Phase I construction general permit on two dates: September 9, 1992, for certain States and territories, and September 25, 1992, for other States and territories where EPA is the permitting authority. The Phase I permit was commonly referred to as the Baseline Construction General Permit. The new permit is the second-round permit (simply called the "construction general permit," "CGP," or "permit") for use in the States, territories and Indian Country lands where EPA is the NPDES permitting authority. The Agency is expanding permit coverage to certain Indian Country lands which were not covered under the 1992 permit. These new areas are listed in the areas of coverage section of the permit and this fact sheet.

Operators of construction projects in EPA Region 4 should note that unlike the Baseline Construction General Permit, this second-round permit no longer authorizes discharges from construction projects on Indian Country lands located in Florida, Mississippi or North Carolina. The Region 4 permit was public noticed in the **Federal Register** on April 16, 1997, (62 FR 18605–18628) for construction storm water discharges in Florida, and Indian Country lands in Florida, Mississippi and North Carolina. Similarly, operators of construction projects in EPA Region 6 are not covered under this permit. A separate Region 6 permit covering construction project discharges located in the following areas is currently under development: The States of New Mexico and Texas; Indian Country lands in Louisiana, Oklahoma, Texas and New Mexico (except Navajo Reservation Lands [see Region 9] and Ute Mountain Reservation Lands [see Region 8] which are covered by this permit); and oil, gas, and pipeline construction projects regulated by the Oklahoma Corporation Commission in the State of Oklahoma. Both permits should be issued in the near future.

IV. Summary of Options for Controlling Pollutants

EPA is providing the following information on controlling pollutants in storm water discharges to assist permittees in preparing storm water pollution prevention plans (SWPPPs). Most controls for construction activities can be categorized in either of two groups: sediment and erosion controls and storm water management measures.

Sediment and erosion controls ordinarily address pollutants in storm water generated from the site during active construction-related work. Storm water management measures are customarily installed before, and coincident with, completion of construction activities, but primarily result in reductions of pollutants in storm water discharged from the site after the construction has been completed. Additional measures that should be employed throughout a project include housekeeping best management practices, such as materials management and litter control.

A. Sediment and Erosion Controls

Erosion controls provide the first line of defense in preventing off-site sedimentation and are designed to prevent erosion through protection and preservation of soil. Sediment controls are designed to remove sediment from runoff before the runoff is discharged from the site. Sediment and erosion controls can be further divided into two major classes of controls: stabilization practices and structural practices. Major types of sediment and erosion practices are summarized below. A more

thorough description of these practices is given in "Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices," U.S. EPA, 1992. Permittees should also consider the construction of new projects in phases to minimize the amount of bare soil which is exposed at one time and the amount of stabilization or structural controls which would be required.

1. Stabilization Practices

Stabilization refers to covering or maintaining an existing cover over soil. Vegetative cover includes grass, trees, vines, shrubs, etc. Stabilization measures can also include nonvegetative controls such as geotextiles, riprap or gabions (wire mesh boxes filled with rock). Mulches such as straw or bark can be somewhat effectual at stabilization in stand-alone fashion but are most effective when used in conjunction with vegetation.

Stabilization of exposed soil is one of the foremost means to minimize pollutant discharge during construction activities. Stabilization reduces erosion potential by absorbing the kinetic energy of raindrops that would otherwise mobilize unprotected soil; by intercepting water so that it infiltrates into the ground instead of running off the surface; and slowing the velocity of runoff, thereby promoting deposition of sediment already being carried. Stabilization provides large reductions in the levels of suspended sediment in discharges and receiving waters. Examples of stabilization measures are summarized below.

a. *Temporary Seeding.* Seeding of temporary vegetation provides stabilization by establishing vegetative cover at areas of the site where earth disturbing activities have temporarily ceased, but will resume later in the construction project. Without temporary stabilization, soil can be exposed to precipitation for an extended period leaving it vulnerable to erosion, even though earth-disturbing activities are not occurring on these areas. Temporary seeding practices have been found to be up to 95% effective in reducing erosion.[1]

b. *Permanent Seeding.* Establishing a permanent and sustainable ground cover at a site stabilizes the soil and hence reduces sediment in runoff. It is typically required at most sites for aesthetic reasons.

c. *Mulching.* Mulching is often done coupled with permanent and temporary seeding. Where temporary or permanent seeding is not feasible, exposed soil can be stabilized by spreading plant residues or other suitable materials on the soil surface. Although generally not as effective as vegetation, mulching by itself provides a measure of temporary erosion control. Mulching in conjunction with seeding provides erosion protection prior to the onset of plant growth. In addition, mulching protects newly-applied seeds, providing a higher likelihood of successful vegetation. To maintain its effectiveness, mulch should be anchored to resist wind displacement.

d. *Sod Stabilization.* Sod stabilization involves establishing long-term stands of grass by planting sod on exposed surfaces. When maintained properly, sod can be more than 99% effective in reducing erosion, and is the most immediately effective vegetation method available.[2] However, the cost of sod stabilization (relative to other vegetative controls) typically limits its use to situations where a quick vegetative cover is desired (*e.g.*, steep or erodible slopes) and sites which can be maintained with ground equipment. Sod is also sensitive to climate and may require intensive watering and fertilization.

e. *Vegetative Buffer Strips.* Vegetative buffer strips are indigenous or replanted strips of vegetation located at the top and bottom of a slope, outlining property boundaries or adjacent to receiving waters such as streams or wetlands. Vegetative buffer strips can slow runoff at critical locations, decreasing erosion and allowing sedimentation. They can be especially useful for very narrow linear construction projects such as underground utilities or pipelines.

f. *Preservation of Trees.* This practice involves preserving selected trees already on-site prior to development. Mature trees provide extensive canopy and root systems which protect and hold soil in place. Shade trees also keep soil from drying rapidly, decreasing the soil's susceptibility to erosion. Measures taken to protect trees can vary significantly, from simply installing tree armor and fences around the drip line, to more complex measures such as building retaining walls and tree wells. Along with the erosion benefits provided by trees, they can also add to the aesthetics and value of the property.

g. *Contouring and Protection of Sensitive Areas.* Contouring refers to the practice of building in harmony with the natural flow and contour of the land. By minimizing changes in the natural contour of the land, existing drainage patterns are preserved as much as possible, thereby reducing erosion. Minimizing the amount of regrading done will also reduce the amount of soil being disturbed.

The preservation of sensitive areas at a site such as steep slopes and wetlands should also be a priority. Disturbance of soil on steep slopes should be avoided due to vulnerability to erosion. Wetlands should be protected because they provide flood protection, pollution mitigation and an essential aquatic habitat.

2. Structural Practices

Structural practices involve the installation of devices to divert, store or limit runoff. Structural practices have several objectives. First, structural practices can be designed to prevent water from flowing on disturbed areas where erosion may occur. This involves diverting runoff from undisturbed, up-slope areas through use of earth dikes, temporary swales, perimeter dikes or other diversions to stable areas. Another objective of structural practices may be to cause sedimentation before the runoff leaves the site. Methods for removing sediment from runoff include diverting flows to a trapping or storage device or filtering diffuse flows through on-site silt fences. All structural practices require proper maintenance (*e.g.*, removal of collected sediment) to remain functional and should be designed to avoid presenting a safety hazard—especially in areas frequented by children.

a. *Earth Dike.* Earth dikes are temporary berms or ridges of compacted soil that channel water to a desired location. Earth dikes should be stabilized with vegetation or an equally efficacious method.

b. *Silt Fence.* Silt fences are a barrier of geotextile fabric (filter cloth) used to intercept sediment in diffuse runoff. They must be firmly anchored and may require additional support, such as reinforcing with wire mesh. Used alone, silt fences are usually inappropriate for flows of concentrated high volume or high velocity. They must be carefully maintained to ensure structural stability and be cleaned of excess sediment.

c. *Drainage Swales.* A drainage swale is a channel lined with grass, riprap, asphalt, concrete or other materials. They are installed to convey runoff without causing erosion.

d. *Sediment Traps.* Sediment traps are installed in drainage pathways, at storm drain inlets or other discharge points from disturbed areas.

e. *Check Dams.* Check dams are small temporary dams constructed across a

[1] Guidelines for Erosion and Sediment Control in California"; USDA, Soil Conservation Service, Davis, CA; revised 1985.

[2] Ibid.

swale or drainage ditch to reduce the velocity of runoff, thereby reducing erosion in the swale or ditch. They should not be used in a permanent stream. More elaborate erosion controls in a flow conduit may be unnecessary if check dams are installed due to the decrease in energy of the runoff.

f. *Level Spreader.* Level spreaders are outlets for dikes and flow channels consisting of an excavated depression constructed at zero grade across a slope. Level spreaders convert concentrated runoff into diffuse flow and release it onto areas stabilized by existing vegetation.

g. *Subsurface Drain.* Subsurface drains transport runoff to an area where the water can be managed effectively. Drains can be made of tile, pipe, or tubing.

h. *Pipe Slope Drain.* A pipe slope drain is a temporary runoff conveyance running down a slope to prevent erosion on the face of the slope.

i. *Temporary Storm Drain Diversion.* Temporary storm drain diversions are used to re-direct flow in a storm drain for capturing sediment in a trapping device.

j. *Storm Drain Inlet Protection.* Storm drain inlet protection reduces sediment entering storm drainage systems prior to permanent stabilization of disturbed areas. Examples include a sediment filter or an excavated detention area around a storm drain inlet.

k. *Rock Outlet Protection.* Rock protection placed at the outlet of conduits can reduce the depth and velocity of water so the flow will not cause downstream erosion.

l. *Other Controls.* Examples of other controls include temporary sedimentation basins, sump pits, entrance stabilization, waterway crossings and wind breaks.

B. Storm Water Management Measures

Storm water management measures are usually installed before, and coincident with, completion of construction activities. The measures primarily result in reductions of pollutants in storm water discharged from the site after cessation of construction activities. Storm water management may also be needed for compliance with local flood control requirements (which may be unrelated to NPDES requirements).

Construction frequently causes significant alterations in the characteristics of the affected land. One such change is an increase in the overall imperviousness of the site, which can dramatically affect the site's flow patterns. An increase in runoff may increase the amount of pollutants carried by the runoff. In addition, some activities (*e.g.*, automobile travel on newly-built roads) can result in higher pollutant concentrations in runoff compared to pre-construction levels. Traditional storm water management controls attempt to limit increases in the amount of runoff and pollution discharged from land impacted by construction.

Storm water management measures include on-site infiltration of runoff, flow attenuation by vegetation or natural depressions, outfall velocity dissipation devices, storm water retention basins and artificial wetlands, and storm water detention structures. For many sites, a combination of these controls may be appropriate. A summary of storm water management controls is provided below. A more complete description of storm water management controls is found in "Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices," U.S. EPA, 1992, and "A Current Assessment of Urban Best Management Practices," Metropolitan Washington Council of Governments, March 1992. In designing storm water controls, features that would pose a safety hazard—especially for children—should be avoided and/or have limited public access.

a. *On-Site Infiltration.* Inducing infiltration, through infiltration trenches or basins, can reduce the volume and pollutant loadings of storm water discharges from a site. Infiltration measures tend to mitigate impacts to an area's natural hydrologic characteristics. Properly designed and installed infiltration constructs can reduce peak discharges, facilitate recharging of the groundwater, augment low flow conditions in receiving streams, reduce storm water discharge volumes and pollutant loads, and inhibit downstream erosion.

Infiltration measures are particularly effective in permeable soils and where the water table and bedrock are well below the surface. Infiltration basins can also double as sediment basins during construction. Infiltration trenches can be easily incorporated into less active areas of a development and are appropriate for small sites and in-fill developments. However, trenches may require regular maintenance to prevent clogging, particularly where grass inlets or other sedimentation measures are not used. In some situations, such as low density areas of parking lots, porous pavement can provide for infiltration.

b. *Flow Attenuation by Vegetation or Natural Depressions.* Flow attenuation caused by vegetation or natural depressions can facilitate pollutant removal and infiltration and can reduce the erosivity of runoff. Use of vegetative flow attenuation measures can protect habitats and enhance the appearance of a site. These measures include grass swales and filter strips as well as trees that are either preserved or planted during construction.

Incorporating check dams into flow paths can provide additional infiltration and flow attenuation. Given their limited capacity to accept large volumes of runoff (and the concomitant erosivity), vegetative controls should usually be used in combination with other storm water devices. Grass swales are typically used in areas such as low or medium density residential development and highway medians as an alternative to curb and gutter drainage system. In general, the costs of vegetative controls are less than for other storm water measures.

c. *Outfall Velocity Dissipation Devices.* Outfall velocity dissipation devices include riprap and stone or concrete flow spreaders. They slow the flow of water discharged from a site thereby reducing erosion.

d. *Retention Structures/Artificial Wetlands.* Retention structures are ponds and artificial wetlands that are designed to maintain a permanent pool of water. Properly installed and maintained retention structures (also known as wet ponds) and artificial wetlands can achieve a high removal rate of sediment, biochemical oxygen demand (BOD), organic nutrients and metals, and are most cost-effective when used to control runoff from larger, intensively developed site. These constructs rely on settling and biological processes to remove pollutants. Retention ponds and artificial wetlands can also become wildlife habitats, recreation, and landscape amenities, and increase local property values.

While the Agency believes artificial wetlands can be one of the most effective long-term storm water management measures, EPA also recognizes the potential problems to which wetlands may contribute at certain sites. This could be the case at airports where bird populations drawn to wetlands proximate to runways/taxiways may endanger moving aircraft. EPA recommends that structures which maintain continuous habitat for wildlife not be constructed within 10,000 feet of a public-use airport serving turbine-powered aircraft, or within 5,000 feet of a public-use airport serving piston-powered aircraft. EPA, as always, stresses public safety and sound engineering judgement in the implementation of any storm water

measure, control or best management practice.

e. *Water Quality Detention Structures.* Storm water detention structures, which include extended detention ponds, control the rate at which water drains after a storm event. Extended detention ponds are usually designed to completely drain in about 24 to 48 hours and to remain dry at other times. They can provide pollutant removal efficiencies similar to those of retention pond. Extended detention systems are typically designed to provide both water quality and water quantity (flood control) benefits.

C. Housekeeping Best Management Practices (BMPs)

Pollutants that could be discharged in storm water from construction sites because of poor housekeeping include oil, grease, paints, gasoline, concrete truck wash down, raw materials used in the manufacture of concrete (sand, aggregate, and cement), solvents, litter, debris and sanitary wastes. Construction site SWPPPs should address the following to prevent the discharge of pollutants:

- Designate and control areas for equipment maintenance and repair;
- Provide waste receptacles at convenient locations and regular collection of wastes;
- Locate equipment wash down areas on site, and provide appropriate control of washwater to prevent unauthorized dry weather discharges and avoid mixing with storm water;
- Provide protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials; and
- Provide adequately maintained sanitary facilities.

V. Summary of Permit Conditions

This section has been written in an informal style and follows the structure of the CGP, but it does not always reflect verbatim the actual language used in the permit. It is intended to help the regulated community and members of the public understand the intent and basis of the actual permit language. If any confusion or conflicts exist between this summary and the actual CGP language, the permittee must comply with the CGP as written. More detail on permit conditions is available in section VIII. Summary of Responses to Comments on the Proposed Permit.

Part I. Areas Covered by Each Permit, Eligibility for the Permit, Obtaining Coverage and Terminating Coverage

A. Permit Areas

Each separate general permit is individually numbered and only provides coverage to construction activities in the permit's designated area or category (*e.g.*, State, Federal facility within a State, Indian Country Land, etc.). Each permittee will be assigned a permit number when his Notice of Intent is processed.

B. Eligibility

1. Discharges and Operations Covered

These permits authorize all discharges of storm water from construction activities except those excluded under the Limitations on Coverage section (Part I.B.3) in the CGP. Any discharge authorized by a different NPDES permit may be commingled with discharges authorized by this permit. The permit also authorizes discharges from construction support activities (*e.g.*, concrete or asphalt batch plants, equipment staging yards, material storage areas, etc.) for local project(s) an operator is currently involved with (*e.g.*, a concrete batch plant providing concrete to several different highway projects in the same county). Authorization of this discharge is contingent upon (1) the support activity not being a commercial operation serving multiple, unrelated construction projects and not operating beyond the completion of the last related construction project it serves; and (2) appropriate controls are identified in the storm water pollution prevention plan (SWPPP) for the discharges from the support activity areas.

2. Limitations on Coverage

Not all storm water discharges from construction sites are authorized by this permit. Specifically excluded are:

1. Storm water discharges originating from a site after construction activities have ceased, the site has undergone final stabilization, and an NOT submitted. If there will be a discharge of storm water associated with industrial activity, or some other regulated discharge from the completed project (*e.g.*, wastewater from a newly-constructed chemical plant), coverage under another permit(s) must be obtained for these discharges.

2. Storm water discharges which are mixed with non-storm water sources, other than those identified in and complying with the permit. Non-storm water discharges which are authorized under a different NPDES permit may be commingled with discharges authorized under this permit.

3. Storm water discharges associated with construction activity that are covered under an individual permit or discharges required to be covered under an alternative general permit.

4. Storm water discharges which the Director (EPA) has determined, or thinks may reasonably be expected, to cause or contribute to a violation of water quality standards. The discharges may be authorized, however, if appropriate measures to assure compliance with water quality standards are included in the SWPPP. For example, the Director may determine that, in the absence of controls, a small construction site poses a threat to water quality. He may then allow coverage if control measures addressing the threat are included in the SWPPP and implemented.

5. Discharges which are not protective of endangered species. Before submitting an NOI, the operator should follow the procedures in Addendum A to determine his eligibility for permitting with regard to protection of endangered species. EPA envisions that the project "owner" or developer would likely do the endangered species analysis during the planning stages of a project (*i.e.*, before construction is scheduled to begin). By design, this effort should not have to be repeated by the contractors, homebuilders, utilities, etc., whose involvement in the project will not happen until later. (*See* section VIII. Summary of Responses to Comments on the Proposed Permit and Addendum A of the permit for further information.)

C. Obtaining Coverage

To obtain authorization to discharge under the general permit, an operator must develop a SWPPP or participate in a joint plan with others, in accordance with the requirements of the CGP. He must then submit a complete and accurate NOI form.

Storm water discharges are authorized two days after the date the NOI is postmarked, unless otherwise notified by EPA. Permittees must implement their SWPPP or their portion of the plan, as soon as they begin work on site. Coverage under the general permit cannot be directly transferred to a new operator; rather a new NOI must be filed by the operator wishing to assume responsibility for permit compliance.

During the first 90 days after the effective date of the CGP, an operator may use the SWPPP developed while he was covered under the previous permit. During the time the new general permit was not available, any operator who has

prepared a pollution prevention plan in accordance with the 1992 general permit may submit an NOI and use his existing SWPPP as an interim plan for 90 days from the effective date of the new permit.

EPA may deny coverage under this permit and require an operator to submit an individual NPDES permit application based on the completeness and/or content of his NOI, or other information such as water quality data, permittee compliance history, etc. If EPA requires a permittee to apply for an individual NPDES permit or an alternative general permit, he will be notified in writing. Coverage under this general permit will automatically terminate if the permittee so notified fails to submit any required individual or alternative permit applications in a timely manner. If an individual permit or alternative general permit was applied for, the date the new permit became effective or denied marks the termination date of this permit.

D. Terminating Coverage

To terminate coverage, a permittee must submit a Notice of Termination (NOT) form. The NOT must be filed within 30 days after cessation of construction activities and final stabilization of the permittee's portion of the site (or temporary stabilization for residential construction where a homeowner is assuming control of a property). An NOT must also be submitted by a permittee before another operator assumes the previous permittee's liabilities. NOT requirements are discussed later in this fact sheet.

Part II. Notice of Intent Requirements

All applicants for NPDES general permits for storm water discharges associated with industrial activity are required to submit Notices of Intent (NOI) to obtain permit coverage (40 CFR 122.28(b)(2)). Submission of a complete and accurate NOI eliminates the need to apply for an individual permit for a regulated discharge, unless the Director specifically notifies the discharger that an individual permit application must be submitted.

Only NOI forms provided by EPA (or photocopies thereof) are valid. A revised, simplified NOI form has been developed for the CGP but was not available as of the effective date of this permit (final approval had not yet been obtained from the U.S. Office of Management and Budget). As soon as the revised form is approved it will be published in the **Federal Register**. All applicants thereafter must use the revised NOI form. Until the revised NOI form is available, operators must continue to use the existing NOI. Though applicants are only required to complete information on the form related to the previous Baseline Construction General Permit, they must be aware that by signing and dating the form they certifying that they understand and are willing to comply with all terms and conditions of the NPDES permit they have applied for, namely the Construction General Permit. These conditions include those found in Part I.B (Permit Eligibility) of the permit.

It is acceptable to fill in information that will be the same for every project (e.g., a company's name, address) and make copies of the partially completed form for future use. An electronic version of the existing NOI form is currently available on EPA's Office of Wastewater Management web site on the Internet and various EPA Regional web pages. The revised NOI form will likewise be added when it becomes available for use.

Each entity meeting either of the two criteria for an operator must submit an NOI. For more details on who must file an NOI, see section V, Part III.E of this Fact Sheet. The proposed definition of "operator" has been clarified in the final permit and the existing regulatory definitions of "owner or operator" and "facility or activity" have also been included. Clarifications to the definition of "operator" were made because some of the regulated community felt the previous definition was nebulous. For further discussions on "operator" as related to construction activity, see section VIII, Summary of Responses to Comments, of this Fact Sheet.

EPA believes there exist situations where a utility company installing service lines meets the definition of operator and must get permit coverage, although most of the time a utility would be considered a "subcontractor" (*i.e.*, non-permittee). If a utility company is constructing a project for itself (*e.g.*, main transmission line, transformer station) it must obtain permit coverage. Otherwise, as a non-permittee working at construction site, EPA encourages utility companies (as it does any subcontractor) to abide by the site's SWPPP provisions and minimize its impacts on storm water controls.

A. Deadlines for Submitting NOIs

An operator's Notice of Intent must be postmarked at least two days prior to commencement of any work on site (if he has control over plans and specifications) or two days prior to commencement of his portion of the work (if he has only day-to-day operational control).

Permittees authorized to discharge under the previous 1992 general permit must submit a new NOI within 90 days of the effective date of this permit in order to continue authorization to discharge after 90 days. An NOI is not required if the permittee will be eligible to submit an NOT (*i.e.*, construction finished and final stabilization complete) before the 90th day.

Permittees authorized to discharge under the 1992 permit and those allowed to use a SWPPP developed in accordance with the 1992 permit, must continue to comply with that plan and update it as necessary, to comply with the requirements of the CGP within 90 days after the **Federal Register** publication date of the CGP.

EPA will accept a late NOI, but the authorization only covers discharges from two days after the postmark date. The authorization does not retroactively apply to any prior, unpermitted discharges. The Agency reserves the right to take enforcement action for any unpermitted discharges of pollutants to waters to the United States.

B. Contents of the New (Revised) NOI

The revised NOI form (available following OMB approval and publication in the **Federal Register**) requires the following information (instructions are on NOI form):

- The operator's (applicant's) name, address, telephone number and whether they are a Federal, State, Tribal, public or private entity (*e.g.*, "XYZ Construction, 123 South St., Anyburg, TX, 214-555-5555, P" [P for private company]);
- The street address (description of location if street address is unavailable), county, and the latitude and longitude of the approximate center of the construction site (*e.g.*, "123 South St., Anyburg, Our County, NH" or "1 mile south of Anyburg, NH, on County Road No. 1; Anyburg, Our County, NH") Help on finding your latitude and longitude is provided in the instructions to the NOI form. If you will be involved in many construction projects, you may wish to invest in a portable Global Positioning System (GPS) unit that provides read-outs of the latitude and longitude. Units designed for recreational use (*e.g.*, boating, hiking) can cost less than $200.
- Whether or not the construction project is located on an Indian Country land;
- The name of the receiving water(s), or if the discharge is through a municipal separate storm sewer, the name of the municipal operator of the

storm sewer and the receiving water(s) (*e.g.*, "Nimby Creek" or "Anyburg, NH" for municipal storm sewers);

• An estimate of project start date and completion date and an estimate of the number of acres of the site on which soil will be disturbed. Note that the project start and stop dates need not be exact. EPA recognizes that many factors, often beyond the permittee's control, contribute to whether a project will actually start or end on the estimated dates. Acreage may be determined by dividing square footage by 43,560, as demonstrated in the following example:

Convert 54,450 ft² to acres

- Divide 54,450 ft² by 43,560 square feet per acre:
- 54,450 ft² ÷ 43,560 ft²/acre = 1.25 acres

• Whether or not the SWPPP has been prepared and (optional) the location of where the plan can be viewed if different from the project address;

• Whether any endangered species identified in Addendum A of the permit are in proximity to the construction project and which of the listed options enables the operator to claim eligibility for permit coverage (see Addendum A for instructions);

• A signature block is provided following a certification statement that everything on the NOI form is correct. The proposed CGP contained multiple certifications but these were eliminated by incorporating an introductory statement into the NOI that submission of the NOI constitutes an agreement to comply with the permit and that the permittee is, in fact, eligible for permit coverage.

The NOI must be signed in accordance with the signatory requirements of 40 CFR 122.22. A complete description of these signatory requirements is provided in Part VI., Standard Permit Conditions, of the general permit.

C. Where To Submit the NOI

Completed NOI forms are to be sent to the NOI Processing Center at the address indicated in the permit, or as otherwise indicated on the latest approved revision to the NOI form. Copies of NOI forms must also be sent to certain States and Tribes as specified in Part X of the permit.

Part III. Special Conditions, Management Practices and Other Non-Numeric Limitations

A. Prohibition of Non-Storm Water Discharges

The CGP does not authorize discharge of unpermitted, non-storm water, either alone or mixed with storm water, except for the specific classes of non-storm water discharges described in the permit. Discharges of material other than storm water which are in compliance with another NPDES permit may be mixed with storm water discharges authorized by this permit. Authorized non-storm water discharges could include:[3]

• Firefighting activity runoff;

• Fire hydrant flushings;

• Vehicle washwater if detergents are not used;

• Dust control runoff in accordance with permit conditions;

• Potable water sources including waterline flushings;

• Routine external building wash-down that did not involve detergents;

• Non-detergent pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed);

• Air conditioning condensate;

• Uncontaminated ground water or spring water;

• Foundation or footer drain-water (providing there was no contamination with process materials such as solvent).

To be authorized for discharge under the CGP, the above-listed sources of non-storm water (except firefighting runoff) must be specifically identified in the SWPPP prepared for the facility. Non-storm water flows from firefighting activities are exempt from control requirements due to the ephemeral and exigent nature of these activities. If practicable, however, the permittee must take action to mitigate the impacts of firefighting runoff on receiving water quality.

For discharges not covered by today's permit (*e.g.*, industrial process wastewater or process wastewater mixed with storm water), the discharger must submit the appropriate application forms (Forms 1 and 2C) to obtain permit coverage or discontinue the discharge. "Allowable" non-storm water discharges cannot be authorized under this permit, unless they are directly related to and originate from a construction site or dedicated support activity site (e.g., a pressure washing company cannot broadly use the CGP for their business operations, because general vehicle washing is not associated with a construction site).

B.&C. Releases of Reportable Quantities of Hazardous Substances or Oil

The CGP requires the permittee to prevent or minimize the discharge of hazardous substances or oil from a site in accordance with the his SWPPP. Furthermore, if a permitted discharge contains a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under 40 CFR 110, 40 CFR 117, or 40 CFR 302, during a 24-hour period, the National Response Center (NRC) must be notified (dial 800-424-8802 or 202-426-2675 in the Washington, DC area). Also, within 14 calendar days of knowledge of the release, the SWPPP must be modified to include the date and description of the release, the circumstances leading to the release, responses to be employed for such releases, and measures to prevent the reoccurrence of such releases.

Where a discharge of a hazardous substance or oil in excess of reportable quantities is associated with a non-storm water discharge (*e.g.*, a spill of oil into a separate storm sewer), the spill would not be authorized by this permit. Spills must still be reported as required under 40 CFR 110. Also applicable are Section 311 of the CWA and certain provisions of Sections 301 and 402 of the CWA. This approach is necessary because of statutory requirements that make a clear distinction between hazardous substances typically found in storm water discharges and spilled hazardous substances that are not (See 40 CFR 117.12(d)(2)(i)).

D. Compliance With Water Quality Standards

The previous permit did not specifically address water quality standards (WQS). The CGP contains an eligibility condition that does not authorize discharges from construction sites that the Director determines will cause, or have reasonable potential to cause or contribute to, violations of water quality standards. Where such determinations have been made, the Director may notify the operator(s) that an individual permit application is necessary. However, the Director may authorize coverage under the permit after appropriate controls and implementation procedures designed to bring the discharges into compliance with water quality standards have been included in the SWPPP.

If a discharge authorized under this permit is later discovered to cause, or have the reasonable potential to cause or contribute to the violation of a WQS, the permitting authority will inform the permittee of the violation. The permittee must then take all necessary actions to ensure future discharges do not cause or contribute to the violation of a WQS, and document these actions in the SWPPP. If violations remain or reoccur, coverage under this permit may be terminated by the permitting authority

[3] These discharges are consistent with the allowable classes of non-storm water discharges to municipal separate storm sewer systems (40 CFR 122.26(d)(2)(iv)(B)).

and an alternative permit issued. Compliance with this requirement does not preclude enforcement actions as provided by the Clean Water Act for the underlying violation.

E. Operator Responsibility

The proposed CGP attempted to outline the responsibilities expected of the variety of operators who may be working at a construction site. For the final permit, this section has been clarified and acknowledges it is possible for one operator to have operational control over all aspects of the project (and thus be the sole permittee), vice the situation where multiple entities meet the definition of operator and would otherwise all need permits. Permittees who intend to act as the sole "overall" operator need to comply with both the "plans and specifications" and "implementation" requirements of the SWPPP.

The permit also stipulates that an operator with control over only a portion of a project is only responsible for permit/SWPPP compliance as it relates to his activities. An operator must also ensure he does not impact another permittee's pollution controls (*e.g.*, if you knock down another operator's silt fence, you should repair it or at a minimum inform the operator). Permittees must either implement their portion of a joint SWPPP or develop and implement their own individual SWPPP.

Part IV. Storm Water Pollution Prevention Plan Requirements

The SWPPP focuses on two major requirements: (1) Providing a site description that identifies sources of pollution to storm water discharges associated with industrial activity on site; and

(2) Identifying and implementing appropriate measures to reduce pollutants in storm water discharges to ensure compliance with the terms and conditions of this permit. All SWPPPs must be developed in accordance with sound engineering practices.

In the development of this permit, the Agency used requirements similar to those found in numerous State and local sediment and erosion control and storm water management programs, covering a variety of climates and types of construction.

A. Deadlines for Plan Preparation

For coverage under this permit, the SWPPP must be prepared before submittal of an NOI and then updated as appropriate (except as allowed for interim plans during the first 90 days of this permit).

B. Signature, Plan Review and Making Plans Available

1. Signature

The SWPPP must be signed in accordance with the signatory requirements in the Standard Permit Conditions section of the CGP.

2. Plan Review

The Agency may notify the permittee at any time that his plan does not meet one or more of the requirements. The notification will identify which requirements of the permit are being unmet and which elements of the SWPPP require modification. Within seven calendar days of receipt of notification from EPA (or as otherwise requested by EPA), the required changes to the plan must be made and a certification submitted that the changes have, in fact, been made and implemented.

3. Making Plans Available

Permittees must make SWPPPs available, upon request, to EPA, State, Tribal or local agencies approving sediment and erosion plans, grading plans or storm water management plans. Plans may also have to be sent to local government officials or the operator of the municipal separate storm sewer which receives the discharge.

A notice about the permit and SWPPP must be conspicuously posted near the main entrance of the site. If displaying near the main entrance is infeasible, the notice can be posted in a local public building such as the town hall or public library. For linear projects, the notice must be posted at a publicly accessible location near the active part of the construction project (*e.g.*, where a pipeline project crosses a public road).

The permit notice must include the following information:

- The project's NPDES permit number;
- The name and phone number of a local contact;
- A brief project description; and
- The location of the SWPPP if not kept on site.

The permit does not require that the general public have access to the construction site nor does it require that copies of the plan be available or mailed to members of the public. However, EPA strongly encourages permittees to provide public access to SWPPPs at reasonable hours. Upon request, EPA intends to assist members of the public in obtaining access to permitting information, including SWPPPs. EPA believes this approach will create a balance between the public's need for information on projects potentially impacting their water bodies and the site operator's need for safe and unimpeded work conditions.

C. Keeping SWPPPs Current

Storm water pollution prevention plans must be revised whenever a change in design, construction method, operation, maintenance procedure, etc., may cause a significant effect on the discharge of pollutants to surface waters or municipal separate storm sewer systems. The plan must also be amended if inspections indicate the SWPPP is ineffective in eliminating or significantly reducing pollutants in the discharges from the construction site. In addition, the plan must be updated to identify any new operator who will implement a portion of the SWPPP.

D. Contents of the Plan

The storm water pollution prevention plan must include:

- A site description;
- A description of controls that will be used on site (*i.e.*, the erosion and sediment controls and storm water management measures);
- A description of maintenance and inspection procedures; and
- A description of pollution prevention measures for any non-storm water discharges present.

1. Site Description

The SWPPP must be based on an accurate assessment of the potential for generating and discharging pollutants from the site. Hence, the permit requires the identification of potential sources of pollution at a construction site that may reasonably be expected to impact the quality of the site's storm water discharges. There must also be a description of the site and anticipated construction activities in the SWPPP (to provide a better understanding of site runoff characteristics). At a minimum, SWPPPs must contain the following:

- A description of the nature of the construction activity including the function of the project (*e.g.*, low-density residential, shopping mall, highway, etc.);
- A description of the intended significant activities, presented sequentially, that disturb soil over major portions of the site (*e.g.*, grubbing, excavation, grading);
- Estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading or other activities, including off-site borrow/fill areas. It may be preferable to separately describe portions of the site as they are disturbed at different stages of the construction process;

• Estimates of the site's runoff coefficient (used for calculating the volume of runoff) during and after construction as well as data describing the quality of any discharge from the site or the soil. The runoff coefficient is defined as the fraction of total precipitation that will appear at a conveyance as runoff (vs. infiltrated precipitation). Runoff coefficients can be estimated from site plan maps, which show where impervious surfaces, vegetation and permeable surfaces will be. These coefficients are used to help determine pollutant loadings, potential hydraulic impacts to receiving waters and flooding impacts. They are also used in the design of post-construction storm water management measures;

• A site map indicating: (1) Anticipated drainage patterns and slopes after major grading activities; (2) areas of soil disturbance and areas that will not be disturbed; (3) locations of major structural and nonstructural controls identified in the plan; (4) locations of planned stabilization measures; (5) locations of surface waters (including wetlands); (6) locations of discharge points to surface waters; (7) off-site locations of equipment storage, material storage, waste storage and borrow/fill areas. Site maps should also include other major features and potential pollutant sources, such as locations of impervious structures and soil storage piles;

• A description of any discharge associated with industrial activity other than construction (including storm water discharges from dedicated asphalt plants, concrete plants, etc.) and the location of that activity on the construction site;

• The name of receiving waters and the areal extent of wetlands at the site; and

• Information on endangered and threatened species including whether any endangered species are in proximity to the permit area as defined in Addendum A to the permit.

2. Controls to Reduce Pollutants

The SWPPP must describe the implementation of practices that will be used to reduce the pollutants in storm water discharges from the site and assure compliance with the terms and conditions of the permit. Four classes of controls must be developed and implemented: (1) Erosion and sediment; (2) storm water management; (3) a specified set of other controls; and (4) any applicable requirements of State, Tribal and local sediment and erosion plans or storm water management plans.

The SWPPP must describe the intended sequence of major storm water control activities and when, in relation to the construction process, they will be implemented. EPA recognizes that many factors can impact the actual construction schedule, so the permittee need not include specific dates (*e.g.*, plan could say install silt fence for area "A" before rough grading, rather than put up silt fences on August 15). Good site planning and preservation of mature vegetation are imperative for controlling pollution in storm water discharges both during and after construction activities. Properly staging major earth disturbing activities can also dramatically decrease the costs of sediment and erosion controls.

Permittees must develop and implement controls in the SWPPP for each of the four categories discussed below.

a. *Erosion and Sediment Controls.* Erosion and sediment controls include both stabilization practices and structural practices. The requirements for erosion and sediment controls for construction activities in this permit have the following goals and criteria:

• Construction phase erosion and sediment controls should be designed with the objective to retain sediment on site;

• Control measures must be properly selected and installed in accordance with sound engineering practices and manufacturers specifications;

• Off-site accumulations of sediment must be regularly removed to minimize impacts;

• Sediment should be removed from sediment traps when the design capacity has been reduced by 50%;

• Litter shall be prevented from entering a receiving water; and

• Off-site material storage areas must be addressed in the SWPPP.

b. *Stabilization Practices.* Stabilization practices are the first line of defense in preventing erosion. The SWPPP must include a description of interim and permanent stabilization practices, including a schedule of their implementation. The permittee should ensure that existing vegetation is preserved wherever possible and that disturbed portions of the site are stabilized as quickly as practicable. Stabilization practices include seeding of temporary vegetation, seeding of permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, preservation of trees and mature vegetative buffer strips, and other appropriate measures. Temporary stabilization can be the single-most important factor in reducing erosion at construction sites.

Stabilization also involves preserving and protecting selected trees on the site prior to development. Mature trees have extensive canopy and root systems, which help to hold soil in place. Shade trees also keep soil from drying rapidly and becoming susceptible to erosion. Measures taken to protect trees can vary significantly, from simple ones such as installing tree armoring and fencing around the drip line, to more complex measures such as building retaining walls and tree wells.

It is imperative that stabilization be employed as soon as possible in critical areas. The CGP requires that, except in three situations, stabilization measures must be instituted on disturbed areas as soon as practicable, but no more than 14 days after construction activity has temporarily or permanently ceased on any portion of the site. The three exceptions to this requirement are the following:

• When construction activities will resume on a portion of the site within 21 days from suspension of previous construction activities;

• When the initiation of stabilization measures is precluded by snow cover or frozen ground, in which case they must be initiated as soon as practicable; and

• In arid areas (areas with an average annual rainfall of 0 to 10 inches), semi-arid areas (10 to 20 inches) and areas experiencing droughts; where the initiation of stabilization measures is precluded by seasonal arid conditions. For the last case, stabilization measures must be initiated as soon as precipitation becomes possible.

c. *Structural Practices.* The SWPPP must include a description of structures built to divert flows from exposed soils, and store or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Structural controls are necessary because vegetative controls cannot be employed where soil is continually disturbed and because of the lag time before vegetation becomes effective. Options for such controls include silt fences, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, sediment traps, reinforced soil retaining systems, gabions and temporary or permanent sediment basins. Placement of structural controls in flood plains should be avoided, rather they should be located on upland soils to the degree possible.

For sites with more than 10 disturbed acres at a time, all of which are served by a common drainage location, a sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent control measures (such as suitably-sized dry wells or infiltration structures), must be provided where

practicable until final stabilization of the site has been accomplished. In lieu of the default 3,600 cubic feet/acre, the permittee can calculate the basin size based on the expected runoff volume from the local two-year, 24-hour storm event and local runoff coefficient. Flows from off-site or on-site areas that are undisturbed or have undergone final stabilization, may be diverted around both the sediment basin and the disturbed area. These diverted flows can be ignored when designing the sediment basin.

For the drainage locations which serve more than 10 disturbed acres at a time and where a sediment basin designed according to the above guidelines is not feasible, smaller sediment basins or traps should be used. At a minimum, silt fences, vegetative buffer strips or equivalent sediment controls are required for all down-slope and appropriate mid-slope boundaries of the construction area. Diversion structures should be used on upland boundaries of disturbed areas to prevent run-on from impacting disturbed areas. EPA does not intend to imply that silt fences or vegetative buffer strips on down-slope boundaries are the only BMPs that need to be used to protect water quality. EPA encourages the use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal.

For drainage locations serving 10 or less acres, smaller sediment basins or sediment traps should be used and, at a minimum, silt fences or equivalent sediment controls are required for all down slope and appropriate mid-slope boundaries of the construction area. Alternatively, the permittee may install a sediment basin providing storage for 3,600 cubic feet (or the alternative calculated volume) of storage per acre drained. Diversion structures should be installed on upland boundaries of disturbed areas to prevent run-on. EPA does not intend to imply that silt fences or vegetative buffer strips on down-slope boundaries are the only BMPs that need to be used to protect water quality. EPA encourages the use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal.

d. *Storm Water Management.* The SWPPP must include a description of storm water management measure, however this permit addresses only the installation of these measures; not the ongoing operation and maintenance of them after cessation of construction activities and final stabilization. Permittees are responsible only for the installation and maintenance of storm water management measures prior to final stabilization of the site. However, when selecting storm water management measures, the amount of required maintenance should be considered and whether there will be adequate resources for maintaining them over the longer term.

Some discharges of pollutants from post-construction storm water management structures may need to be authorized under an NPDES permit (*e.g.*, the construction project was an industrial facility in a sector covered by the NPDES multi-sector general permit). The owner/operator of such discharges may inquire with EPA if this requirement applies to them.

Land development can significantly increase storm water runoff volume and peak velocity if appropriate storm water management measures are not implemented. In addition, post-development storm water discharges will typically contain higher levels of pollutants, including total suspended solids (TSS), heavy metals, nutrients and high oxygen-demand components.

Storm water management measures installed during the construction process can control the volume and velocity of runoff, as well as reduce the quantity of pollutants discharged post-construction. Reductions in peak discharge velocity and volume can reduce pollutant loads as well as diminish physical impacts such as stream bank erosion and stream bed scour. Storm water management measures that mitigate changes to pre-development runoff characteristics assist in protecting and maintaining the physical and biological characteristics of receiving streams and wetlands.

Structural measures should be installed on upland areas to the extent feasible. The installation of such measures may be subject to section 404 of the CWA if they will be located in wetlands (or other waters of the United States).

Options for storm water management measures that should be evaluated in the development of plans include:

- On-site infiltration of precipitation;
- Flow attenuation by use of open vegetated swales and natural depressions;
- Storm water retention/detention structures (including wet ponds); and
- Sequential systems using multiple methods.

The pollution prevention plan shall include an explanation of the technical basis used to select control measures, where flows exceed pre-development levels. This explanation should address how a number of factors were evaluated including the pollutant removal efficiencies of the measures, costs of the measures, site-specific factors that will affect the utility of the measures, whether the measure is economically achievable at a particular site and any other relevant factors.

Although not a limitation or performance standard in the permit, EPA anticipates that storm water management measures at many sites will be able to achieve removal of at least 80% of total suspended solids. A number of storm water management measures can be used to achieve this level of control, including:

- Properly designed and installed wet ponds;
- Infiltration trenches and basins;
- Sand filter systems;
- Manmade storm water wetlands; and
- Multiple pond systems.

The pollutant removal efficiencies of various storm water management measures can be estimated from a number of sources, including "Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices," U.S. EPA, 1992, and "A Current Assessment of Urban Best Management Practices" prepared for U.S. EPA by Metropolitan Washington Council of Governments, March 1992.

In selecting storm water management measures, the permittee should consider the impacts of each method on other water resources, such as ground water. Although SWPPPs primarily focus on storm water management, EPA encourages facilities to avoid creating groundwater pollution problems. For example, if the water table is high in an area or soils are especially porous, an infiltration pond may contaminate the groundwater unless special preventive measures are taken. Per EPA's July 1991 Ground Water Protection Strategy, States are encouraged to develop Comprehensive State Ground Water Protection Programs (CSGWPP). Efforts to control storm water should be compatible with State or Tribal ground water objectives as reflected in CSGWPPs. Storm water controls, such as wet ponds, should also be designed to have minimal safety risks, especially to children.

The evaluation of whether the pollutant loadings and the hydrologic conditions (the volume of discharge) of flows exceed pre-development levels can be based on hydrologic models which consider conditions such as the natural vegetation endemic to the area.

Increased discharge velocities can greatly accelerate erosion near the outlet of structural measures. To mitigate these effects, velocity dissipation devices should be placed at discharge points

and along the length of a runoff conveyance, as necessary, to provide a non-erosive flow. Velocity dissipation devices help protect a water body's natural, pre-construction physical and biological uses and characteristics (*e.g.*, hydrologic conditions such as the hydro period and hydrodynamics).

e. *Other Controls.* Other controls to be addressed in SWPPPs for construction activities are for compliance with the requirement that nonsolid materials, including building material wastes, not be discharged at the site except as authorized by a section 404 permit.

This permit requires vehicular tracking of soil off-site and the generation of dust must be minimized. Dust and dirt-tracking can be minimized by measures such as providing gravel or paving at entrance/exit drive paths, parking areas and unpaved transit ways on the site carrying significant amounts of traffic (*i.e.*, more than 25 vehicles per day); providing entrance wash racks or stations for trucks; and performing street sweeping.

In addition, the SWPPP must clearly show compliance with applicable State/Tribal or local sanitary sewer, septic system and waste disposal regulations to the extent they apply to the permitted activity.[4] The plan must also contain a description of practices to reduce pollutants from construction-related materials which are stored on site, including a description of said construction materials (with updates as appropriate). The plan should include a description of pollutant sources from areas untouched by construction and a description of controls and measures which will be implemented in those areas.

The plan must also include measures to protect listed endangered and threatened species and/or critical habitat (if applicable), including any terms or conditions that are imposed pursuant to the eligibility requirements of Part I.B.3.e and Addendum A of this permit, from storm water discharges or BMPs to control storm water runoff. Failure to include these measures will result in the storm water discharges from the construction activities being ineligible for coverage under this permit. (*See* section VI. Endangered Species Protection and also section VIII. Summary of Responses to Comments for more discussion.)

f. State/Tribal and Local Controls. Many States, Tribes, municipalities and counties have developed sediment and erosion control requirements for construction activities. A significant number have also developed storm water management requirements. The CGP requires that SWPPPs for facilities that discharge storm water associated with industrial activity from construction activities be consistent with procedures and requirements of State/Tribal and local sediment and erosion control plans and storm water management plans. The proposed requirement to have permit applicants certify that their SWPPP incorporates requirements related to protecting water resources that are specified in State/Tribal or local sediment and erosion plans or storm water management plans has been eliminated.

g. Maintenance. Erosion and sediment controls can become ineffective if they are damaged or not properly maintained. The SWPPP requires all erosion and sediment control measures to be maintained in effective operating condition. If site inspections identify BMPs that are not operating effectively, maintenance must be performed before the next anticipated storm event. If maintenance before the next anticipated storm event is impracticable, maintenance must be completed as soon as practicable.

h. Inspections. Permittees must inspect designated areas on the site at least once every 14 calendar days, and within 24 hours after any storm event of 0.5 inches or greater. EPA also recommends that permittees perform a "walk through" inspection of the construction site before anticipated storm events (or series of events such as intermittent showers over a period of days) that could potentially yield a significant amount of runoff.

Visual inspections must comprise, at a minimum:

- Disturbed areas;
- Areas used for storage of exposed materials;
- Sediment and erosion control measures; and
- Locations where vehicles enter or exit the site.

For sites that have undergone stabilization (temporary or final) or experience seasonal aridity (average annual rainfall of 0 to 10 inches) or semi-aridity (annual rainfall of 10 to 20 inches), inspections must be conducted at least once a month. Where construction activity has been halted due to frozen conditions, inspections are not required until one month before thawing is expected (*i.e.*, snowmelt runoff would commence).

Where discharge points are accessible, they must be inspected to ascertain whether erosion control measures are effective in preventing impacts to receiving waters. This can be done by inspecting the waters for evidence of erosion or sediment introduction. If discharge points are inaccessible, the permit requires that nearby downstream locations be inspected, if practicable.

Were an inspection to reveal inadequacies, the site description and pollution prevention measures identified in the SWPPP must be revised. All necessary modifications to the SWPPP must be made within seven calendar days following the inspection. If existing BMPs need to be modified or if additional BMPs are necessary, implementation shall be completed before the next anticipated storm event. If implementation before the next storm event is impracticable, they shall be implemented as soon as practicable.

Once an inspection has been performed, a report containing the following must be retained with the SWPPP for up to three years after the site has been finally stabilized:

- Components and scope of the inspection;
- Names and qualifications of personnel conducting the inspection;
- Dates of the inspection;
- Observations relating to the implementation of the SWPP;
- Actions taken; and
- Incidents of non-compliance.

If no incidents of non-compliance were found, the report shall contain a certification that the facility is in compliance with the SWPPP and this permit. Finally, the report must be signed in accordance with the signatory requirements in Part VI. Standard Permit Conditions section of the CGP.

Diligent inspections are vital for ensuring effective implementation of sediment and erosion controls, particularly in the later stages of construction when the volume of runoff is greatest and storage capacity of sediment basins has been reduced.

i. Non-Storm Water Discharges. The SWPPP must identify and ensure the implementation of appropriate pollution prevention measures for each of the eligible non-storm water components of the discharge covered by this permit. The eligible non-storm water discharges

[4] In rural and suburban areas served by septic systems, malfunctioning septic systems can contribute pollutants to storm water discharges. Malfunctioning septic tanks may be a more significant surface runoff pollution problem than a groundwater problem. This is because a malfunctioning septic system is less likely to cause groundwater contamination where a bacterial mat in the soil retards the downward movement of wastewater. Surface contamination can be caused by clogged or impermeable soils, or when clogged or collapsed pipes force untreated wastewater to the surface. The extent of surface contamination can vary in degree from occasional damp patches to constant pooling or runoff of wastewater. These discharges have high bacteria, nitrate and nutrient levels and can contain a variety of household chemicals. This permit does not establish new criteria for septic systems, but rather requires addressing existing State or local criteria.

are discussed in section V. Part III. Special Conditions, Management Practices, and Other Non-Numeric Limitations in the Fact Sheet.

j. Additional Requirements. Storm water from a permitted industrial source other than construction activities is authorized for discharge when commingled with construction storm water only under the following conditions: (1) The other industrial source is located on the same site as the construction activity; and (2) storm water discharges from the permitted construction site are in compliance with the terms of this permit.

k. Contractors and Subcontractors. The SWPPP must identify who will be responsible for implementing each measure contained in the plan. It is the permittee's responsibility to provide necessary information on complying with their SWPPP and the permit to their contractors and subcontractors.

Part V. Retention of Records

The permittee must retain all records and reports required by this permit, including SWPPPs and information used to complete the NOI, for at least three years from the date of final stabilization. This period may be extended by request of the Director.

A copy of the SWPPP must be kept at the construction site from the date of project initiation to the date of final stabilization. Permittees with day-to-day operational control over the plan's implementation must keep a copy of the plan readily available whenever they are on site (a central location accessible by all on-site operators is sufficient). If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location must be conspicuously posted at the construction site. A copy of the SWPPP must be readily available to authorized inspectors during normal business hours.

Part VI. Standard Permit Conditions

This section of the permit contains the standard permit conditions required by 40 CFR 122.41. One condition is the procedure for continued coverage under a general permit if it expires prior to a replacement permit being issued. In short, the expired permit would remain in full force and effect in accordance with the Administrative Procedures Act. Any permittee granted coverage prior to the permit's expiration date will automatically remain covered by the continued permit until the earliest of:

- The permit being reissued or replaced;
- The permittee terminating coverage by submitting an NOT;
- Issuance of an individual permit for the permittee's discharges; or
- A formal decision by the Director not to reissue the general permit, at which time the permittee must seek coverage under an alternative general permit or an individual permit.

(For more information, see section VIII. Summary of Responses to Comments on the Proposed Permit.)

Part VII. Reopener Clause

The permit contains a reopener clause allowing the permit to be reopened and modified for cause during the term of the permit. Generally, this would be triggered by a water quality concern, a change in NPDES statutes, or to incorporate procedures developed by the EPA and the Advisory Council for Historic Preservation to provide for additional consideration of effects to properties either listed or eligible for listing in the National Register of Historic Places.

Part VIII. Notice of Termination Requirements

Permittees must submit a completed Notice of Termination (NOT) that is signed according to Part VI.G of the permit when one or more of the conditions contained in Part I.D.2 of the permit have been met. NOTs must be submitted using the form provided by the Director (*i.e.*, use the existing NOI form found in Appendix D of the permit until the revised version is published in its final form in the **Federal Register**), or a photocopy thereof. NOTs provide EPA with a useful mechanism to track the status of projects which are actively covered by the permit.

Significant parts of the NOT are:

- Permittee name and contact information, and site location information;
- The permit number which is being terminated;
- Permittee certification that he understands that submission of the NOT means he no longer will have authorization to discharge storm water associated with construction activity;
- Clarification that the authorization to discharge ends at midnight of the day the NOT is postmarked; and
- The conditions under which an NOT can be submitted.

Part IX. Definitions

The permit contains 21 definitions of statutory, regulatory and other terms important for understanding the permit and its requirements. See section VIII. Summary of Responses to Comments for discussions on the critical definitions of "operator" and "final stabilization."

Part X. Permit Conditions Applicable to Specific States, Indian Country Lands or Territories

Permit conditions that only apply to construction projects located in a specific State, Indian land or other area are in Part X of the permit. These conditions are modifications or additions to analogous conditions in Parts I through IX of the "generic" portion of the CGP, and reflect additional requirements arising from the State section 401 (Clean Water Act) or Coastal Zone Management Act (CZMA) certification processes or as otherwise established by the permitting authority. EPA must include any more stringent permit conditions required by a State or Tribe to get State/Tribal certifications of the permit under section 401 (*See* 40 CFR 122.44(d)(3)) or CZMA (*See* 40 CFR 122.49(d)).

Areas with special area-specific conditions are:

Region 1

- Commonwealth of Massachusetts, except Indian Country lands.
- State of Maine, except Indian Country lands.

Region 8

- Indian Country lands in the State of Montana.

Region 9

- State of Arizona, except Indian Country lands.
- Island of Guam.
- Commonwealth of Northern Mariana Islands.

Region 10

- State of Alaska, except Indian Country lands.
- State of Idaho, except Indian Country lands.
- Federal facilities in the State of Washington, except those located on Indian Country lands.
- Indian Country lands in the State of Washington.

VI. Endangered Species Protection

A. Background

The CGP also contains conditions to ensure the activities regulated by it are protective of species that are listed under the Endangered Species Act (ESA) as endangered or threatened (known as "listed species"), and listed species habitat that is designated under the ESA as critical ("critical habitat"). In addition, the permit's coverage does not extend to discharges and discharge-related activities likely to jeopardize the continued existence of species proposed but not yet listed as endangered or threatened or result in the adverse

modification of habitat proposed to be designated critical habitat.

The ESA places several different requirements on activities covered by the CGP. First, section 9 of the ESA and the ESA implementing regulations generally prohibit any person from "taking" a listed animal species (*e.g.*, harassing or harming it) unless the take is authorized under the ESA. This prohibition applies to all entities and includes EPA, permit applicants, permittees and the public at large. Second, section 7(a)(2) of the ESA requires that Federal agencies consult with the Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) ("the Services") to insure that any action authorized, funded or carried out by them (also known as "agency actions") are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of critical habitat. Jeopardizing the continued existence of a listed species means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers or distribution of that species (*See* 40 CFR 402.02).

The ESA section 7 implementing regulations at 50 CFR 402 apply this consultation requirement to any action authorized by a Federal agency that may affect listed species or critical habitat, including permits. This effect, among other things, can be beneficial, detrimental, direct and indirect. The issuance of the CGP by EPA is thus subject to the ESA section 7(a)(2) consultation requirements. Finally, ESA section 7(a)(1) directs Federal agencies to use their authority to further the purposes of the ESA by carrying out programs for the conservation of listed species, and section 7(a)(4) directs Federal agencies to confer with the Services on Agency actions likely to jeopardize the existence of species proposed but not yet finally listed or result in the adverse modification of critical habitat proposed to be designated.

The ESA regulations provide for two types of consultation: formal and informal. Informal consultation is an optional process that includes discussions, correspondence, etc. between the Services and a Federal agency or a designated non-Federal representative (NFR) to determine whether a Federal action is likely to have an adverse effect on listed species or critical habitat. During informal consultation the Services may suggest modifications to the action that a Federal agency, permit applicant or non-Federal representative could implement to avoid likely adverse effects to listed species or critical habitat. If adverse effects are likely and those effects cannot be addressed through informal consultation, then formal consultation generally occurs.

Formal consultation is a 135-day process that results in issuance of a biological opinion by the Services in which they determine whether the Federal action is likely to jeopardize the existence of a listed species or result in adverse modification or destruction of critical habitat. Formal consultation can also provide authorization for anticipated incidental take of listed animal species, provided any such take is consistent with an incidental take statement contained in the biological opinion. While informal consultation is not a prerequisite to formal consultation, most section 7 consultations are carried out as informal consultations.

Federal permit applicants frequently play a key role in both formal and informal consultation. The ESA regulations provide for permit applicants, where designated, to carry out informal consultations as a NFR, which enables them to work directly with the Services (*See* 50 CFR 402.08). EPA has designated applicants for this storm water construction general permit as non-Federal representatives. The regulations also provide for the participation of permit applicants in formal consultation (*See* 50 CFR 402.14 and 51 FR 19939 [June 3, 1986]).

Also of relevance for the CGP are ESA section 10 incidental taking permits. Section 10 of the ESA allows persons, including non-Federal entities to incidentally take listed animal species, where otherwise prohibited, through the issuance of a permit after development of a habitat conservation plan (HCP). These procedures were developed to allow non-Federal entities such as developers to, among other things, alter habitat without incurring takings liability where take is minimized to the extent practicable.

B. Conditions in the June 2, 1997 Proposed Permit to Protect Species and Critical Habitat

The CGP was proposed with a number of conditions to ensure that storm water discharges and best management practices (BMPs) to control storm water run off were protective of listed species or critical habitat. Specifically, coverage under the proposed CGP would be granted only under the following circumstances:

1. An applicant's storm water discharges or BMPs to control storm water runoff were not likely to adversely affect listed species (identified in Addendum A of the permit) or critical habitat; or

2. The applicant's activity was previously authorized under section 7 or section 10 of the Endangered Species Act (ESA) and that authorization addressed storm water discharges and BMPs to control storm water runoff; or

3. The applicant's activity was considered as part of a larger, more comprehensive assessment of impacts on endangered and threatened species under section 7 or section 10 of the ESA which accounted for storm water discharges and BMPs to control storm water runoff; or

4. Consultation under section 7 of the ESA was conducted for the applicant's activity which resulted in either a no jeopardy opinion or a written concurrence on a finding of no likelihood of adverse effects; or

5. The applicant's activity was considered as part of a larger, more comprehensive site-specific assessment of impacts on endangered and threatened species by the owner or other operator of the site and that permittee certified eligibility under items 1., 2., 3. or 4. above.

The proposal required that applicants assess the impacts of their "storm water discharges" and "BMPs to control storm water run off" on listed species and critical habitat that are located "in proximity" to the those discharges and BMPs when developing Storm Water Pollution Prevention Plans (SWPPPs) as part of the application process. The proposed CGP also required applicants to include measures in SWPPPs to protect listed species and critical habitat. "In proximity" was defined in Addendum A to include species:

- Located in the path or immediate area through which or over which contaminated point source storm water flows from construction activities to the point of discharge into the receiving water;
- Located in the immediate vicinity of, or nearby, the point of discharge into receiving waters; or
- Located in the area of a site where storm water BMPs are planned or are to be constructed.

EPA also solicited comment on whether the area or scope of impacts to be considered by applicants should be broadened to encompass listed species found on the entire construction site and not just those species found "in